

CLAIMS

1-8 (canceled)

9. (Withdrawn) The process of claim 6 wherein said nucleating agent comprises sodium benzoate and derivatives thereof.

10. (Withdrawn) The process of claim 6 wherein said nucleating agent comprises 1,2-cyclohexanedicarboxylate salts and derivatives thereof.

11. (Withdrawn) The process of claim 6 wherein said nucleating agent comprises aluminum 4-tert-butylbenzoate and derivatives thereof.

12. (Withdrawn) The process of claim 6 wherein said nucleating agent comprises metal salt(s) of cyclic phosphoric esters and derivatives thereof.

13-14 (canceled)

15. (Withdrawn) The process of claim 6 wherein said nucleating agent comprises disodium bicyclo[2.2.1]heptanedicarboxylate or derivatives thereof.

16-22 (canceled)

23. (Withdrawn) A preform article formed by employing the process of claim 1.

24. (Withdrawn) A container formed by employing the process of claim 2.

25-27 (canceled)

28. (Withdrawn) The process of claim 26, wherein said chemical composition further comprises a nucleating agent.

29. (Withdrawn) The process of claim 28 wherein said nucleating agent is selected from the group of agents consisting of: dibenzylidene sorbitol-containing compounds, sodium benzoate, cyclohexanedicarboxylate salts, aluminum 4-tert-butylbenzoate, metal salts of phosphoric esters, and derivatives thereof.

30. (canceled).

31. (Withdrawn) The process of claim 28 wherein said nucleating agent comprises disodium bicyclo[2.2.1]heptanedicarboxylate or derivatives thereof.

32-37 (canceled).

38. (Withdrawn) The preform article formed by the process of claim 26.

39 (canceled)

40. (Withdrawn) The container formed by employing the process of claim 39.

41-42 (canceled).

43. (Withdrawn) A preform article formed using the process of claim 41.

44. (Withdrawn) A container formed using the process of claim 42.

45-46 (canceled).

47. (Withdrawn) A preform article formed using the process of claim 45.

48. (Withdrawn) A container formed using the process of claim 46.

49. (canceled)

50. (Withdrawn) The process of claim 49 wherein further comprising the steps of:

(e) reheating said preform article; and

(f) stretch blow molding said preform article to form a container.

51. (Withdrawn) A preform article formed using the process of claim 49.

52. (Withdrawn) A container formed using the process of claim 50.

53. (Withdrawn) A process comprising the steps of:

(a) providing a chemical composition comprising polypropylene, said chemical composition having an MFI in the range of between about 13 and about 35 grams/10

minutes, according to ASTM D 1238, said chemical composition further comprising a nucleating agent, said nucleating agent comprising at least in part 1,3-O-2,4-bis(3,4-dimethylbenzylidene) sorbitol (DMDBS) or derivatives thereof;

(b) injecting said chemical composition into a mold at a fill rate of between about 5 and about 22 grams of chemical composition per second;

(c) forming said chemical composition into a preform article, said preform article having a side wall thickness of between about 2 mm and about 4 mm; and

(d) removing said preform article from said mold.

54. (Withdrawn) A preform article formed according to the process of claim 53.

55. (Withdrawn) The process of claim 53 wherein further comprising the steps of:

(e) reheating said preform article; and

(f) stretch blow molding said preform article to form a container.

56. (Currently Amended) In a two stage process of injection stretch blow molding polypropylene, the steps of:

(a) providing a chemical composition comprising polypropylene, said chemical composition having a melt flow index in the range of between about ~~[[6]]~~ 13 and about 50 grams/10 minutes according to ASTM D 1238;

(b) injecting said chemical composition into a mold at a fill rate of greater than about 5 grams of chemical composition per second;

(c) forming said chemical composition into a preform article, said preform article having a closed end connected to a side wall, said preform side wall having a thickness in the range of about 2 - 4 mm;

(d) removing said preform article from said mold;

(e) subsequently reheating said preform article; and

(f) stretch blow molding said reheated preform article to form a container, wherein said container has at least one side wall having a side wall thickness, wherein the percent haze to thickness ratio of said container side wall is less than about 0.4 percent haze/ mil.

57. (Previously Presented) The process of claim 56 wherein said injection step (b) provides said chemical composition into said mold at a fill rate in the range of about 5 - 22 grams/second.

58. (Previously Presented) The process of claim 56 wherein said chemical composition comprises an ethylene/propylene copolymer.

59. (Previously Presented) The process of claim 56 wherein said chemical composition further comprises a nucleating agent.

60. (Previously Presented) (New The process of claim 59 wherein said nucleating agent comprises dibenzylidene sorbitol compound (DBS) or a derivative thereof.

61. (Previously Presented) The process of claim 59 wherein said nucleating agent comprises sodium 1,3-O-2, 4-bis(4-methylbenzylidene) sorbitol and derivatives thereof.

62. (Previously Presented) The process of claim 60 wherein said nucleating agent comprises bis(3,4-dialkylbenzylidene) sorbitol acetal.

63. (Previously Presented) The process of claim 60 wherein said nucleating agent comprises 1,3-O-2,4-bis(3,4-dimethylbenzylidene) sorbitol.

64. (Previously Presented) The process of claim 56 wherein said haze/thickness ratio of said container is less than about 0.3 percent haze/ mil.

- 65, (Previously Presented) The process of claim 56 wherein said haze/thickness ratio of said container is less than about 0.2 percent haze/ mil.
66. (Previously Presented) The process of claim 56 wherein said percent haze of said side wall of said container is less than about 6%.
67. (Previously Presented) The process of claim 66 wherein said container is about 10-20 mils in side wall thickness.
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68. (Previously Presented) The process of claim 56 wherein said stretch blow molding step (f) is repeated successively in a manufacturing operation at a rate of container production of greater than about 900 containers per hour per mold.
69. (Previously Presented) The process of claim 56 wherein said stretch blow molding step (f) is repeated successively in a manufacturing operation at a rate of container production of at least about 1200 containers per hour per mold.
70. (Previously Presented) The process of claim 56 wherein said blow molding step (f) is repeated successively in a manufacturing operation at a rate of container production of at least about 1500 containers per hour per mold.
71. (Withdrawn) A container formed by the process of claim 56.

72. (Previously Presented) In a two stage process of injection stretch blow molding polypropylene, the steps of:

(a) providing a chemical composition comprising polypropylene, said chemical composition having a melt flow index in the range of about 13 - 35 grams/10 minutes according to ASTM D 1238;

(b) injecting said chemical composition into a mold at a fill rate in the range of about 5-22 grams of chemical composition per second;

(c) forming said chemical composition into a preform article, said preform article having a closed end connected to a side wall, said preform side wall having a thickness in the range of about 2 - 4 mm;

(d) removing said preform article from said mold;

(e) subsequently reheating said preform article; and

(f) stretch blow molding said reheated preform article to form a container, wherein said container has at least one side wall having a side wall thickness, wherein the percent haze to thickness ratio of said container side wall is less than about 0.4 percent haze/ mil.

73. (Previously Presented) The process of claim 72 wherein said chemical composition further comprises a nucleating agent.

74. (Previously Presented) The process of claim 73 wherein said nucleating agent comprises dibenzylidene sorbitol compound (DBS) or a derivative thereof.

75. (Previously Presented) The process of claim 72 wherein said nucleating agent comprises sodium 1,3-O-2, 4-bis(4-methylbenzylidene) sorbitol and derivatives thereof.

76. (Previously Presented) The process of claim 72 wherein said nucleating agent comprises bis(3,4-dialkylbenzylidene) sorbitol acetal.

77. (Previously Presented) The process of claim 72 wherein said nucleating agent comprises 1,3-O-2,4-bis(3,4-dimethylbenzylidene) sorbitol.

78. (Previously Presented) The process of claim 72 wherein said haze/thickness ratio of said container is less than about 0.3 percent haze/ mil.

79. (Previously Presented) The process of claim 72 wherein said haze/thickness ratio of said container is less than about 0.2 percent haze/ mil.

80. (Previously Presented) The process of claim 72 wherein said percent haze of said side wall of said container is less than about 6%.

81. (Previously Presented) The process of claim 72 wherein said container is about 10-20 mils in side wall thickness.

82. (Previously Presented) The process of claim 72 wherein said stretch blow molding step (f) is repeated successively in a manufacturing operation at a rate of container production of greater than about 900 containers per hour per mold.

83. (Previously Presented) The process of claim 72 wherein said stretch blow molding step (f) is repeated successively in a manufacturing operation at a rate of container production of at least about 1200 containers per hour per mold.

84. (Previously Presented) The process of claim 72 wherein said blow molding step (f) is repeated successively in a manufacturing operation at a rate of container production of at least about 1500 containers per hour per mold.

85. (Withdrawn) A container formed by the process of claim 72.

86. (Previously Presented) The process of claim 72 wherein said preform side wall thickness of step (c) is about 2 mm.

87. (Previously Presented) The process of claim 72 wherein said preform side wall thickness of step (c) is about 3 mm.

88. (Previously Presented) The process of claim 72 wherein said preform side wall thickness of step (c) is about 4 mm.

89. (Previously Presented) A process comprising the steps of:

(a) providing a chemical composition comprising polypropylene, said chemical composition having an MFI in the range of between about 13 and about 35 grams/10 minutes according to ASTM D 1238, said chemical composition further comprising a nucleating agent, said nucleating agent comprising at least in part a dimethyl dibenzylidene sorbitol compound;

(b) injecting said chemical composition into a mold at a fill rate of between about 5 and about 22 grams of chemical composition per second;

(c) forming said chemical composition into a preform article, said preform article having a wall thickness of between about 2 mm and about 4 mm; and

(d) removing said preform article from said mold; and

(e) subsequently reheating said preform article; and

(f) stretch blow molding said reheated preform article to form a container.

90. (Previously Presented) The process of claim 89 wherein said wherein said container has at least one side wall having a side wall thickness, wherein the percent haze to thickness ratio of said container side wall is less than about 0.4 percent haze/mil.

91. (Previously Presented) The process of claim 90 wherein said haze/thickness ratio of said container is less than about 0.3 percent haze/ mil.

92. (Previously Presented) The process of claim 90 wherein said haze/thickness ratio of said container is less than about 0.2 percent haze/ mil.
93. (Previously Presented) The process of claim 90 wherein said percent haze of said side wall of said container is less than about 6%.
94. (Previously Presented) The process of claim 90 wherein said container is about 10-20 mils in side wall thickness.
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95. (Previously Presented) The process of claim 89 wherein said stretch blow molding step (f) is repeated successively in a manufacturing operation at a rate of container production of greater than about 900 containers per hour per mold.
96. (Previously Presented) The process of claim 89 wherein said stretch blow molding step (f) is repeated successively in a manufacturing operation at a rate of container production of at least about 1200 containers per hour per mold.
97. (Previously Presented) The process of claim 89 wherein said blow molding step (f) is repeated successively in a manufacturing operation at a rate of container production of at least about 1500 containers per hour per mold.
98. (Withdrawn) A container formed by the process of claim 89.